

# CTC

Centro de Tecnologia Canavieira

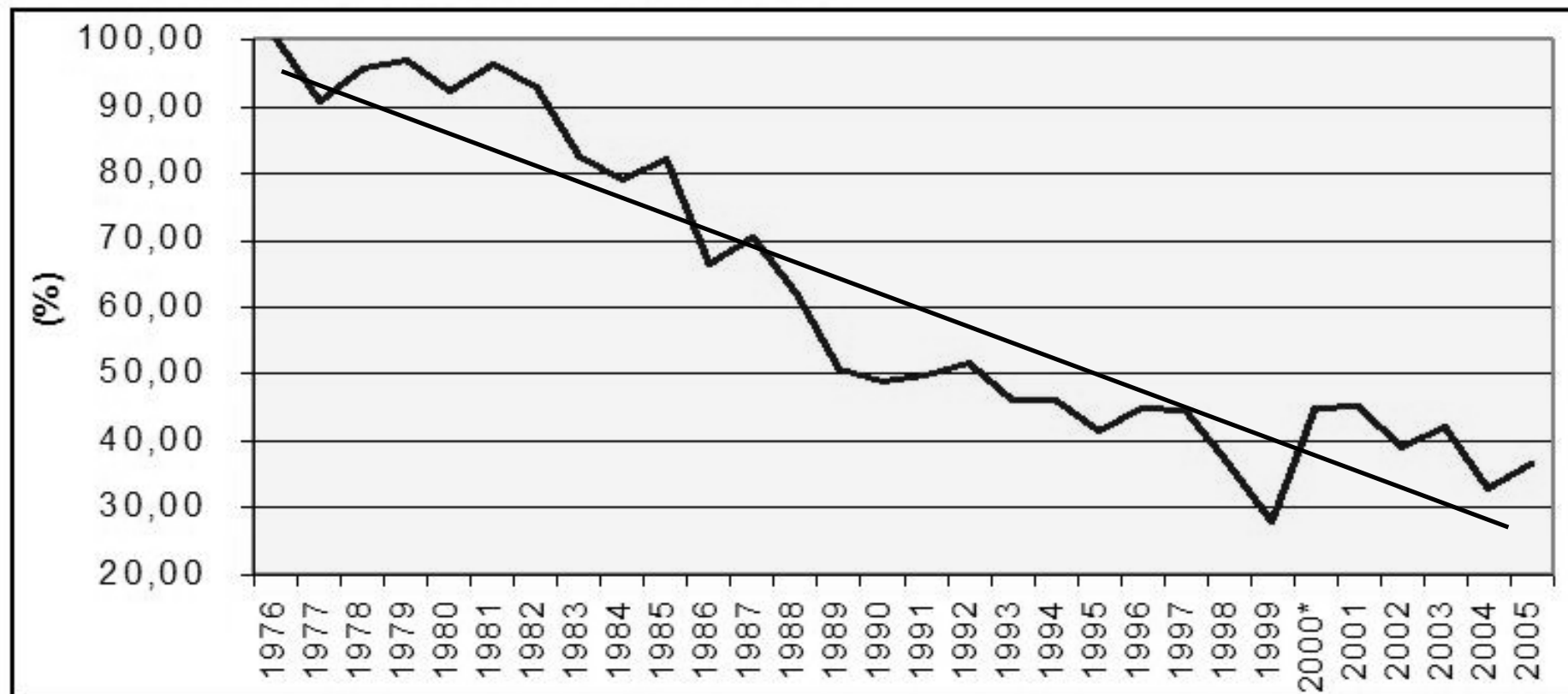


**Technology Overview and Perspectives on Next  
Generation Technologies**

**Visão Geral da Tecnologia e Perspectivas das  
Tecnologias de Nova Geração**

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# Ethanol Cost Evolution



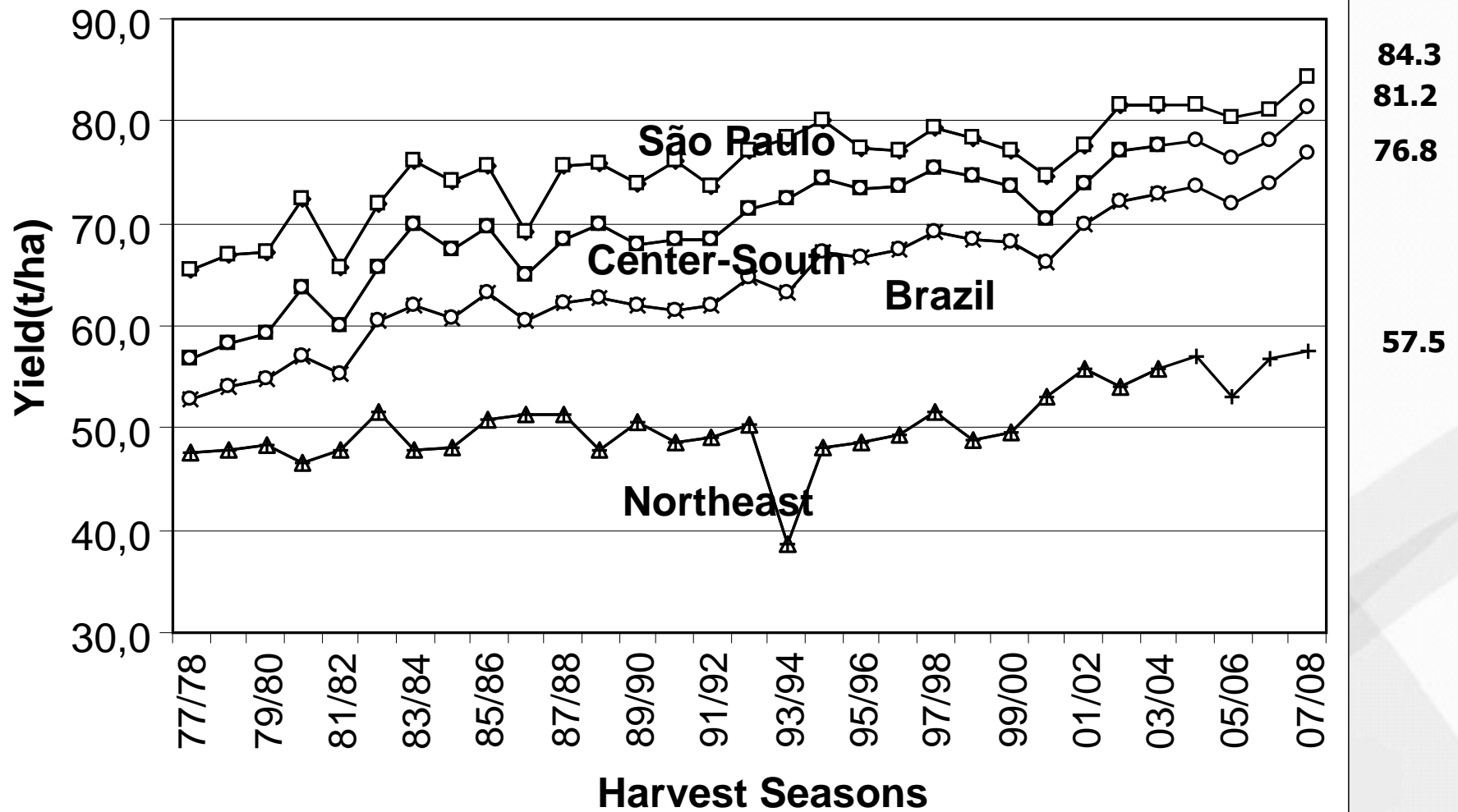
DEFLACIONADOS PELO IGP-DI - valores de julho de 2005

- Preços aos produtores sem impostos

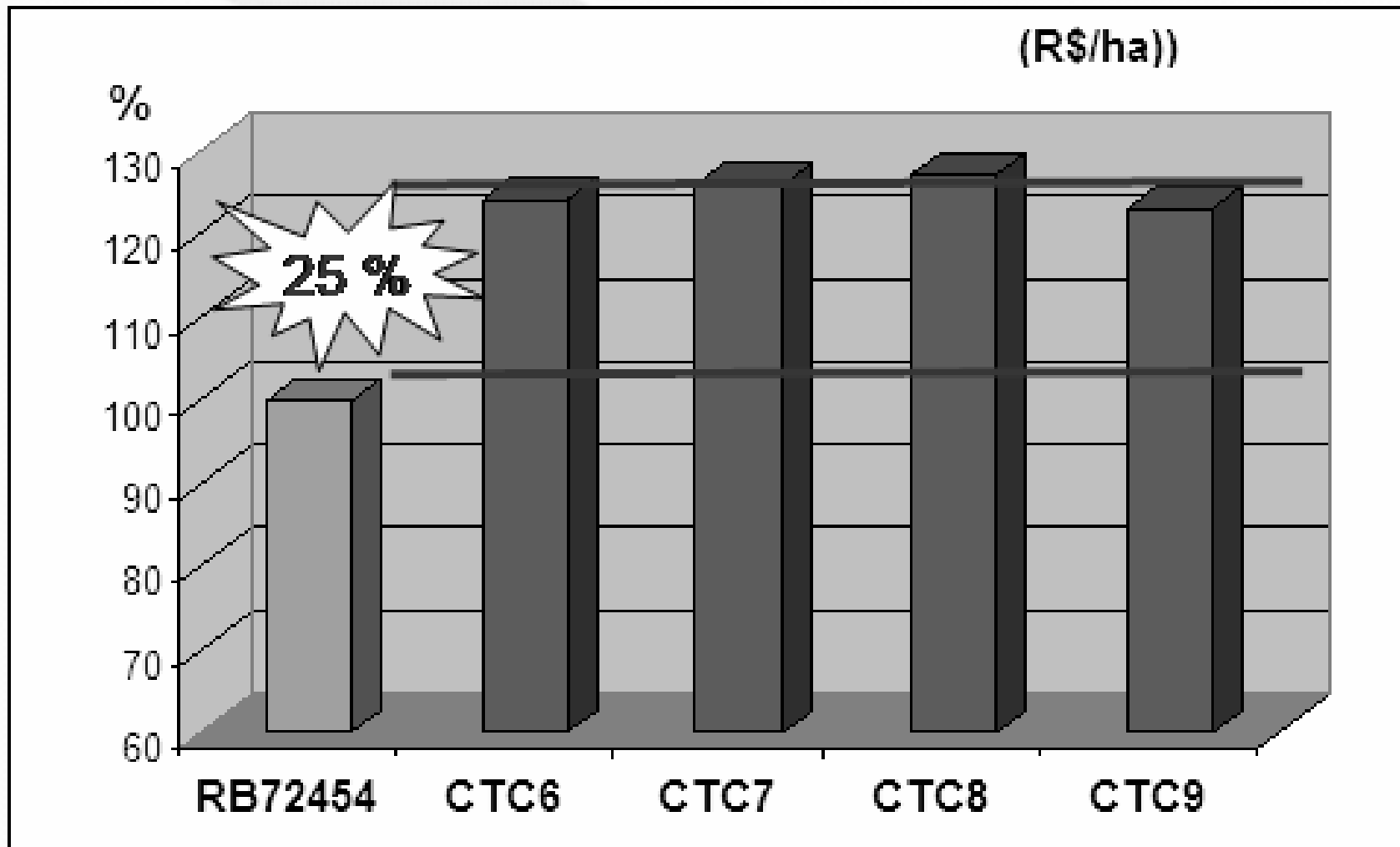
- 1976 = base 100

(\*) - momento de excesso de oferta

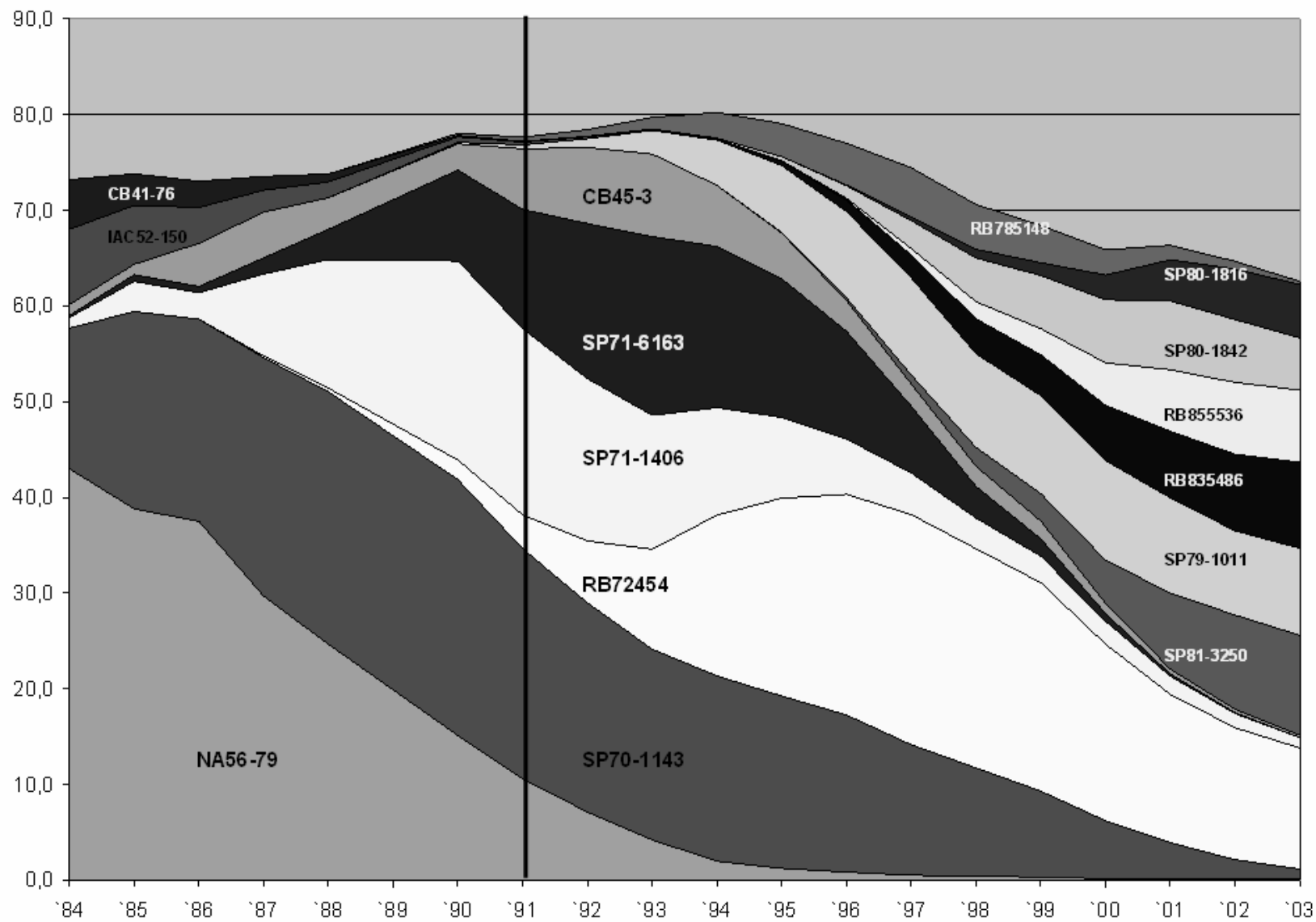
## Yield by Brazilian Regions



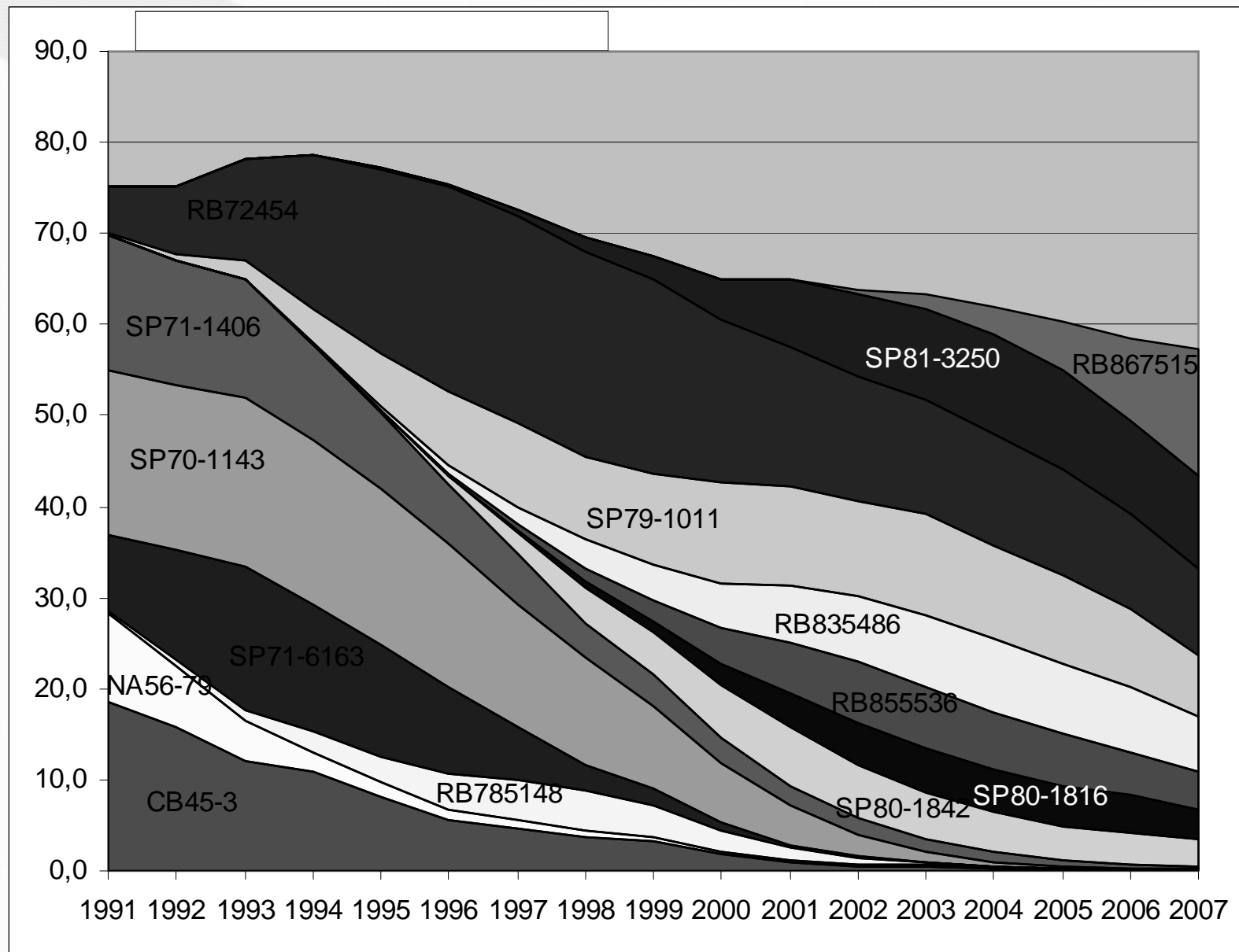
# New varieties benefits



# Area (%)

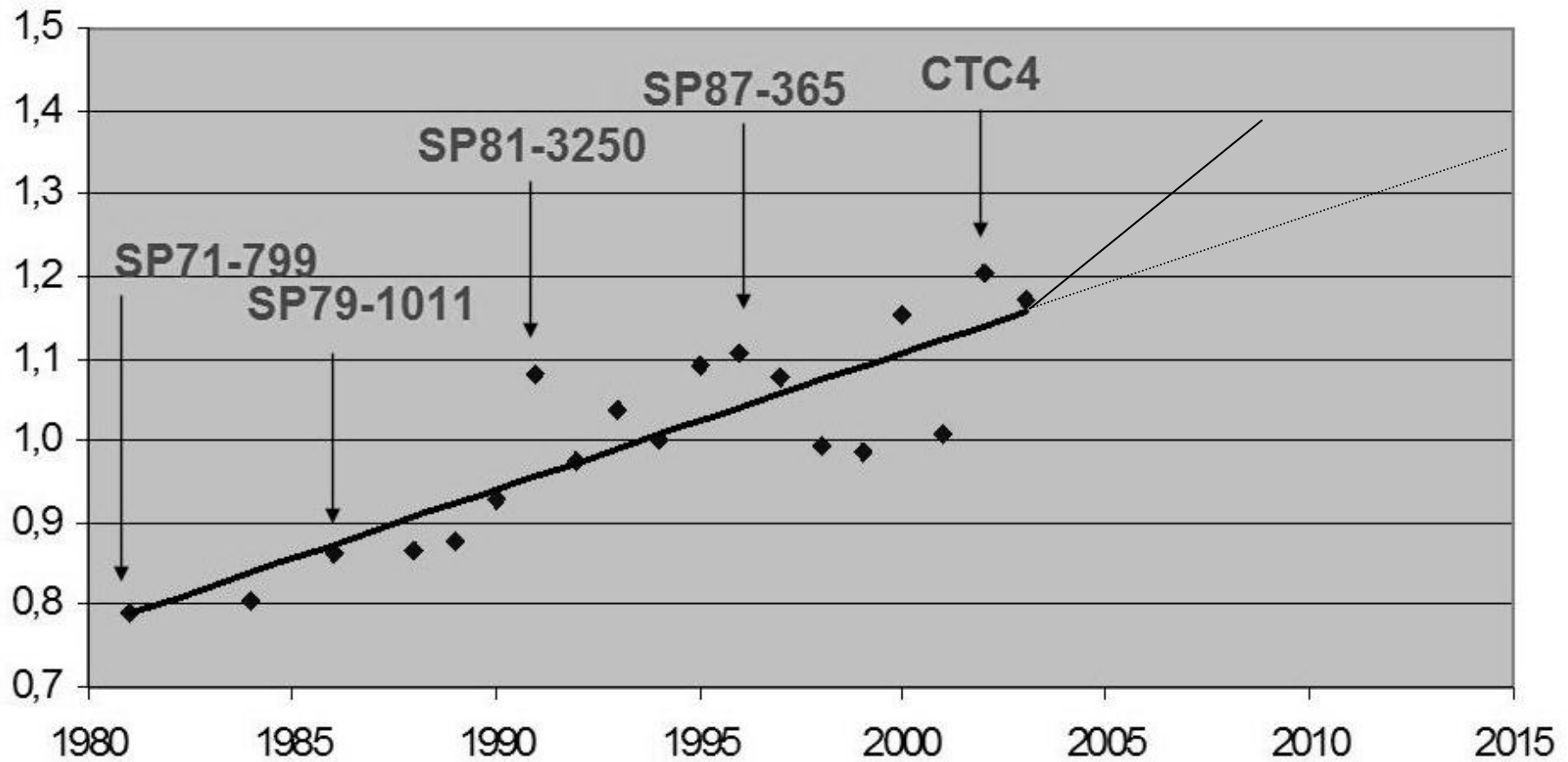


# Area (%)

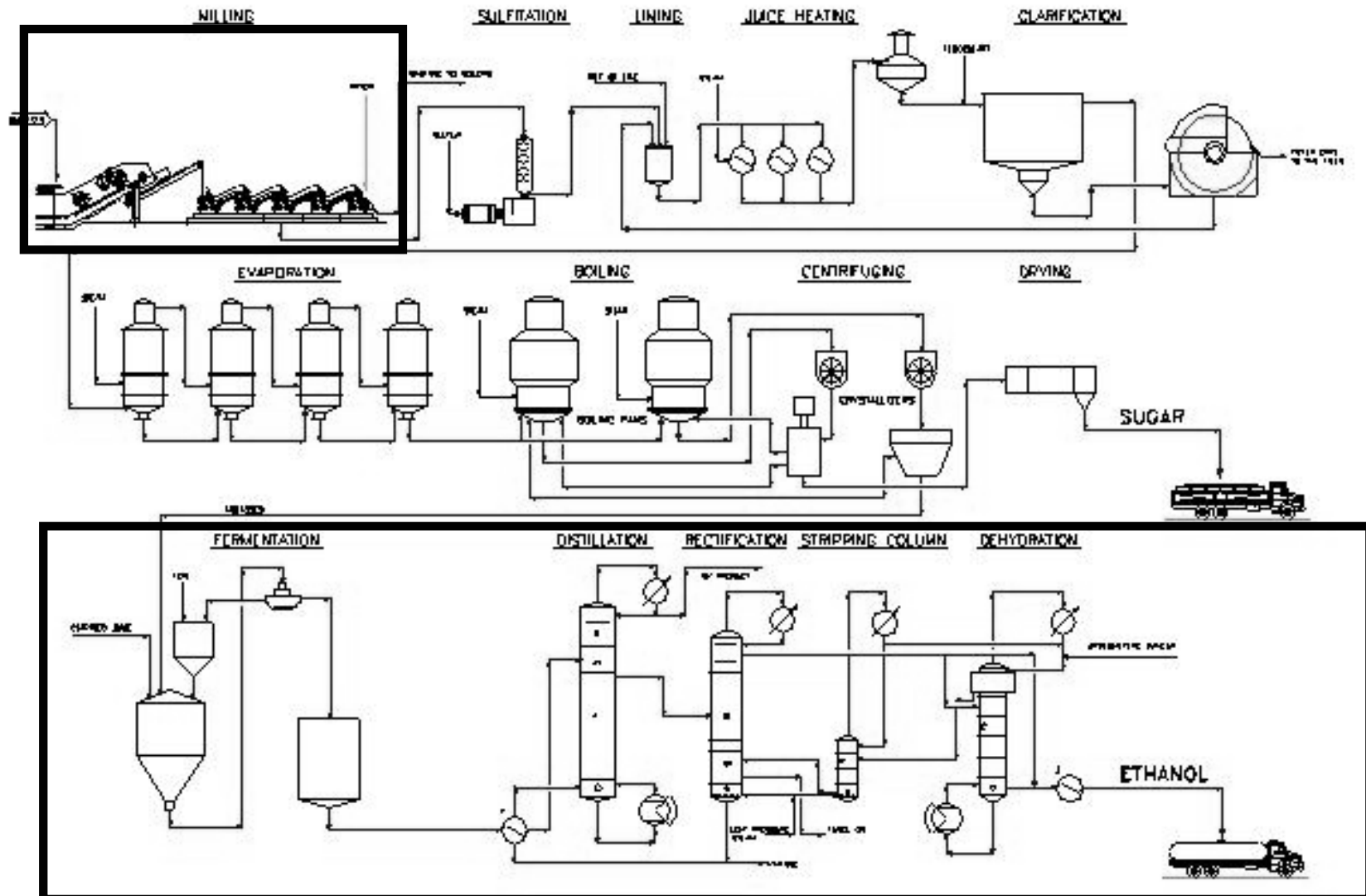


# CTC Sugarcane Breeding

Evolution of CTC varieties  
Tons of sugar per hectare relative values

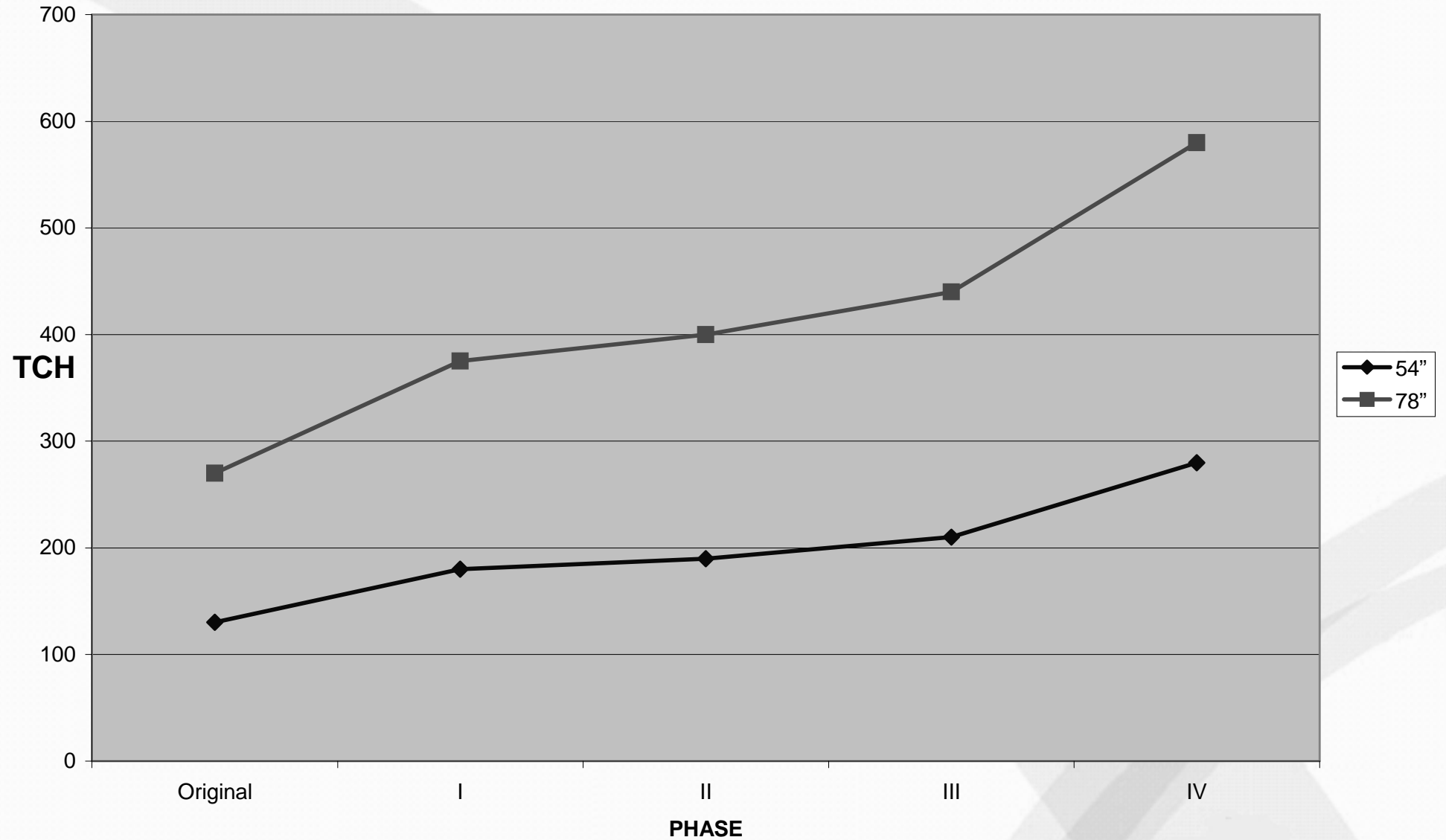


### FLOW DIAGRAM - SUGAR AND ETHANOL

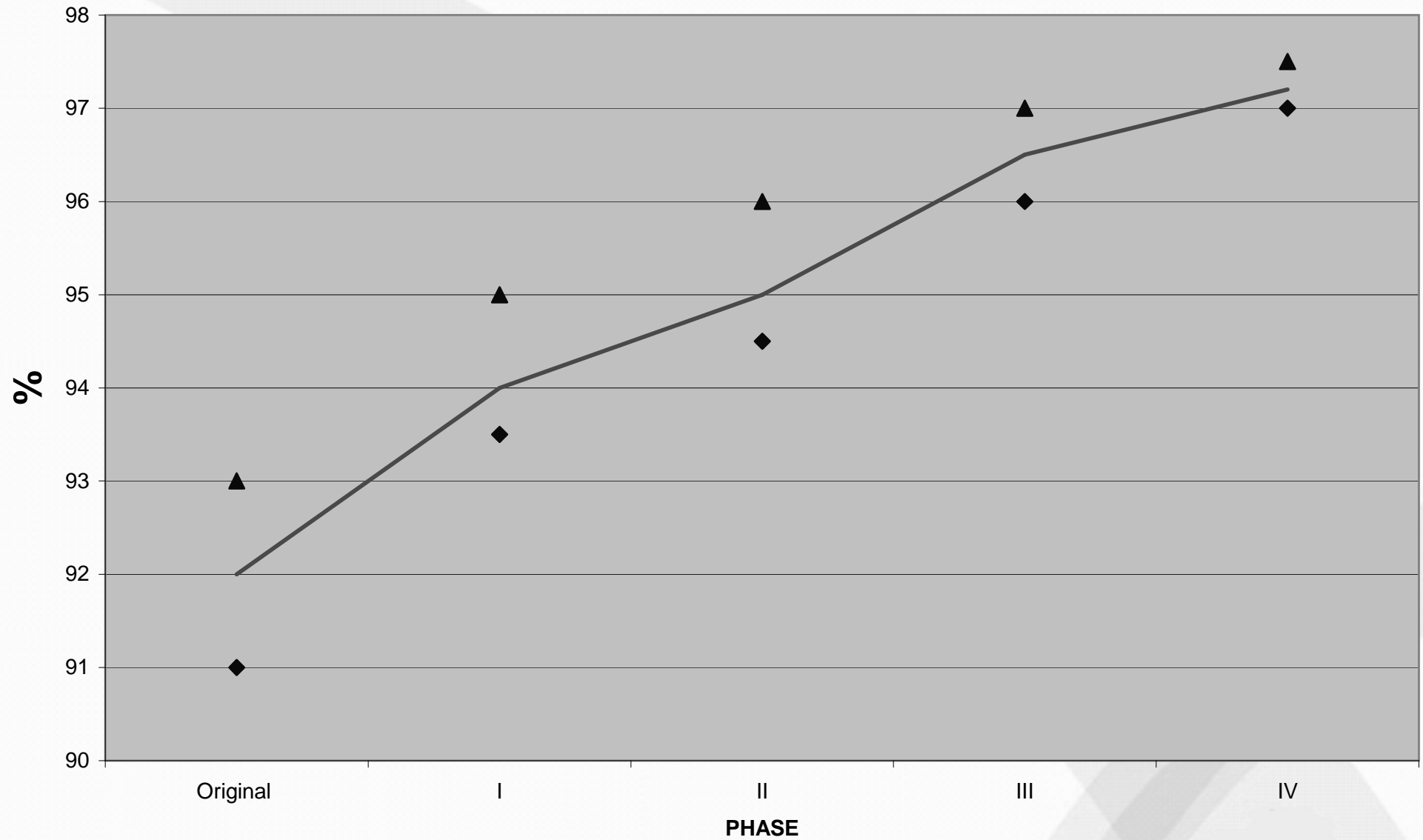




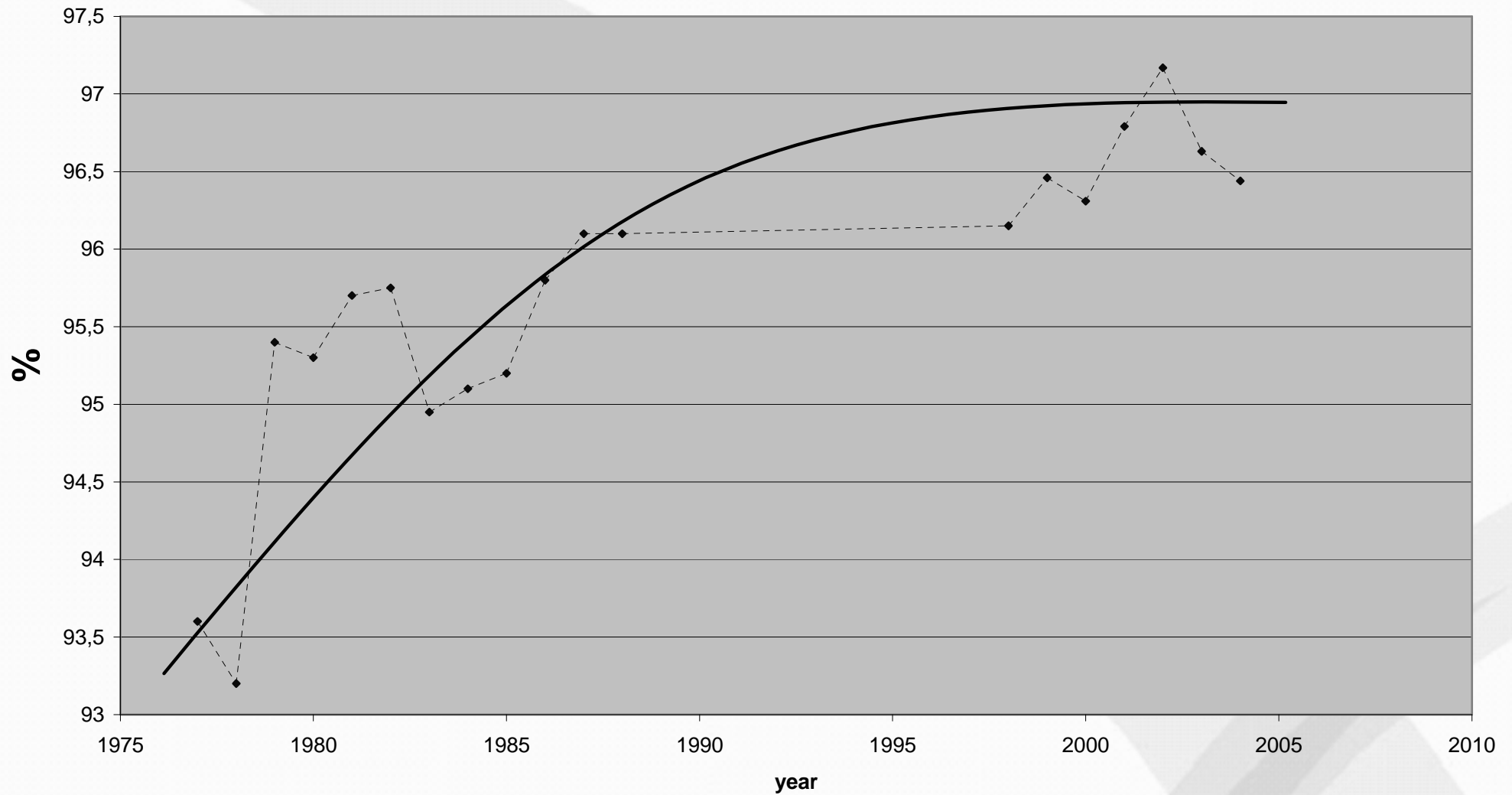
# Evolution of milling capacity



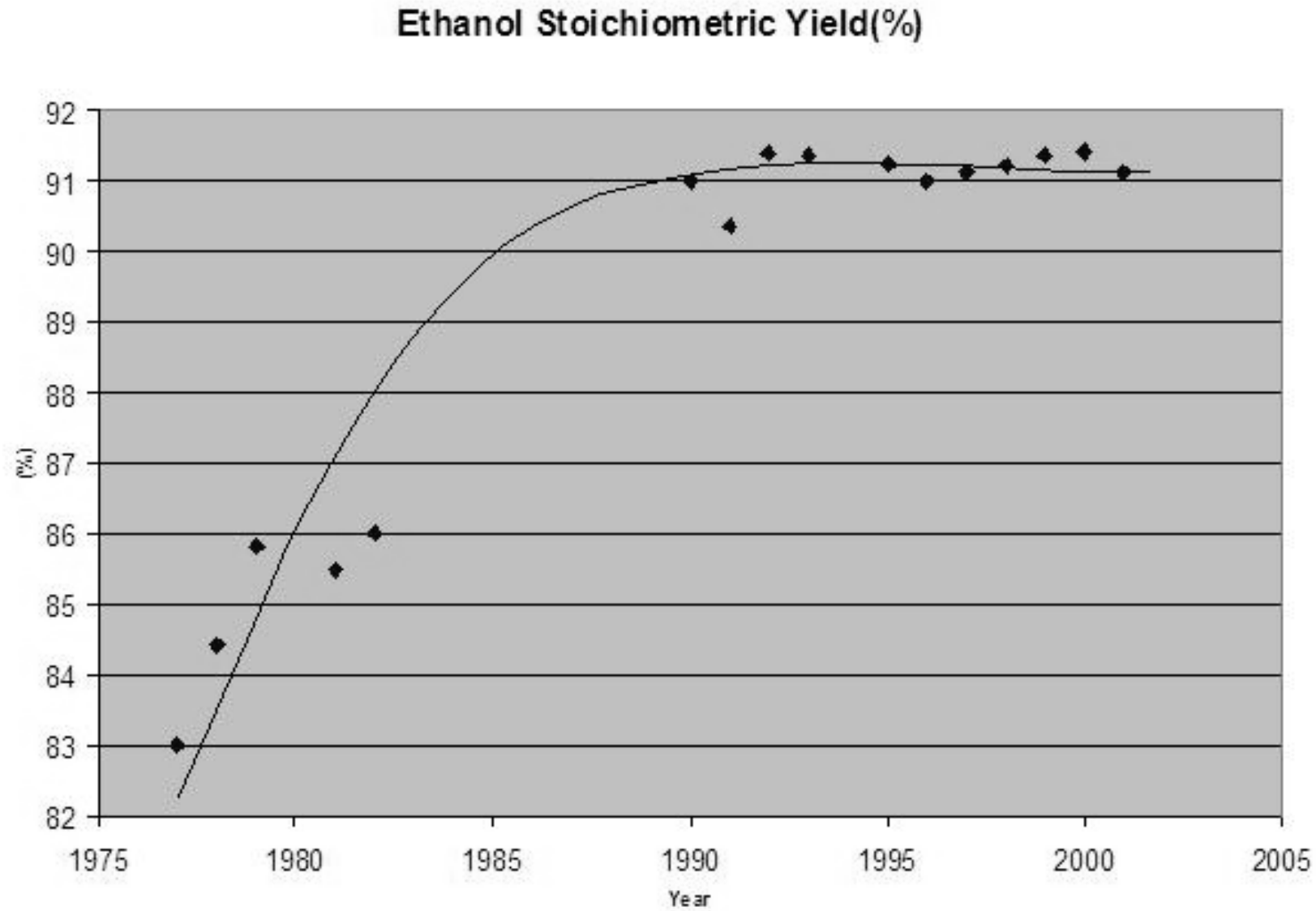
# Evolution of milling efficiency



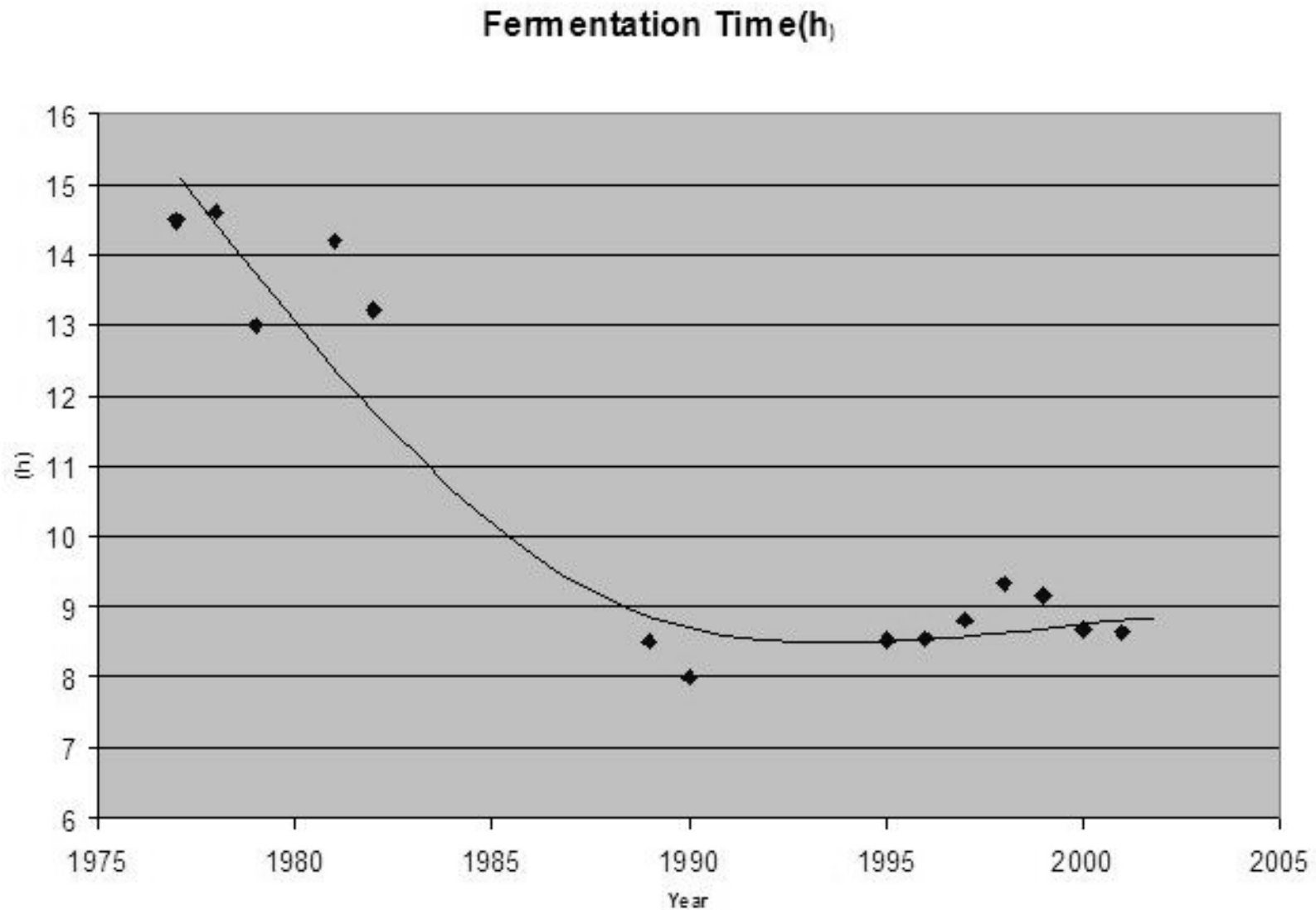
# Evolution of milling efficiency



# Evolution of fermentation process



# Evolution of fermentation process

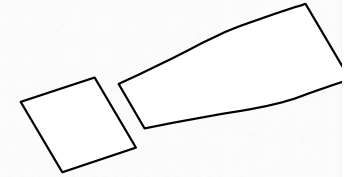


# ***Future ?***

## ***2 x 2 x 2***

- Energy cane
  - 2x more biomass / ha
- Carbon (CO<sub>2</sub>) capture
  - Algae biodiesel: 2x more biofuels / ha
- Better use of biofuels
  - “Hypercars”
  - Hybrids then Fuel cells
    - 2x more mileage / ha

# Thanks



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